

CAREER MATURITY OF EMOTIONALLY MALADJUSTED  
HIGH SCHOOL STUDENTS

By

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A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF  
THE UNIVERSITY OF FLORIDA  
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE  
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1976

To my wife, Lydia, and to my three  
children, Mike, Mona, and Ranya,  
for your unlimited love, support  
and encouragement which made this  
work possible.

## ACKNOWLEDGMENTS

I wish to express my deep appreciation and sincere thanks to the many people who helped me in my doctoral studies and in the completion of this doctoral research.

Dr. Ted Landsman, a friend for whom I have the highest level of admiration and respect, for his guidance, support, and encouragement during my doctoral studies. Dr. Landsman served as my chairman during my doctoral studies until his acceptance of an invitation from the University of Haifa as a visiting professor which necessitated his withdrawal during the last quarter of my studies.

Dr. E. L. Tolbert, my chairman, for his being sincere in his help, long in his patience, with his quiet manner, which has been a great source of support and encouragement.

The other members of my supervisory committee, Dr. Franz Epting, for his support and understanding; Dr. Larry Loesch for his suggestions and his help dealing with the analysis of the data, Dr. Thomas Skovholt, a friend, for his emotional support and sincere interest and for his editing of the manuscript.

The University of Haifa, Israel, for their financial support during the period of my studies. Special appreciation is extended to Drs. Abraham Benjamin and Sami Mari, from the University of Haifa, for making it possible.

The students and school personnel who participated in this study. Mr. Arthur Stirrat, a counselor at Eastside High School; Mr. Tom Erney, Ms. Gayle VelDink, and Mr. Russell Bedell, from the Guidance Office of Buchholtz High School. Mr. William Noffsinger for his help with the data analysis.

My wife, Lydia, for her patience, understanding, support, and for her enduring eight years encouraging and sacrificing. My children, Mike, Mona, and Ranya, for their sacrificing and encouraging, which were combined with questioning and frustration, "where is my daddy," "when can daddy play with us," "when can we see him," and for their help when they were quiet when it was needed. To this family, with their unlimited love, I owe all I can give.

# TABLE OF CONTENTS

	<u>Page</u>
ACKNOWLEDGMENTS . . . . .	iii
LIST OF TABLES . . . . .	vii
ABSTRACT . . . . .	ix
CHAPTER	
I INTRODUCTION . . . . .	1
Rationale of Study . . . . .	5
The Purpose of the Study . . . . .	8
Definition of Terms . . . . .	8
II REVIEW OF RELATED LITERATURE . . . . .	10
Meaning of Work to the Individual . . . . .	10
Vocational Development and Personality . . . . .	13
Vocational Development and Adolescents . . . . .	23
Career Maturity and Adjustment . . . . .	30
Summary . . . . .	40
III METHODOLOGY . . . . .	42
Instruments . . . . .	43
Minnesota Counseling Inventory . . . . .	43
Career Maturity Inventory - Attitude Scale . . . . .	45
Self-Report . . . . .	50
The Sample . . . . .	50
Null Hypotheses . . . . .	52
Data Collection . . . . .	52
Analysis of the Data . . . . .	53
IV ANALYSIS OF THE DATA . . . . .	54
Introduction . . . . .	54
Descriptive Statistics . . . . .	54
Results . . . . .	57
Hypothesis 1 . . . . .	57
Hypothesis 2 . . . . .	62
Hypothesis 3 . . . . .	62
Hypothesis 4 . . . . .	67
Hypothesis 5 . . . . .	70
Self-Report Question . . . . .	70
Correlation . . . . .	77

# Table of Contents (Continued)

CHAPTER	<u>Page</u>
Discussion of Results . . . . .	77
Summary . . . . .	80
V CONCLUSIONS AND IMPLICATIONS . . . . .	82
Introduction . . . . .	82
Conclusions . . . . .	82
Implications . . . . .	83
Suggestions for Further Research . . . . .	85
BIBLIOGRAPHY . . . . .	86
BIOGRAPHICAL SKETCH . . . . .	94

# LIST OF TABLES

	<u>Page</u>
Table 1 Odd-Even Reliability Coefficients for the Diagnostic Scales of the MCI . . . . .	46
Table 2 Test-Retest Reliability Coefficients for the Diagnostic Scales of the MCI . . . . .	47
Table 3 Means, Standard Deviation, and N of the Total Population . . . . .	55
Table 4 Race, Class, and Sex of Total Group . . . .	56
Table 5 Mean, Standard Deviation, and N of CMI-Attitude Scores of Total Group . . . . .	58
Table 6 CMI-Attitude Scores by Maladjusted and Well Adjusted Students . . . . .	60
Table 7 Four-Way Fully Factorial Analysis of Variance on Mean CMI-Attitude Scale, with Group (Well Adjusted and Maladjusted), Class, Sex, and Race as Fixed Effects . . . . .	61
Table 8 CMI-Attitude Scores by Male and Female . . .	63
Table 9 One-Way Analysis of Variance of CMI-Attitude Scores for Male and Female Students in the Maladjusted Group . . . . .	64
Table 10 Results of CMI-Attitude by Whites and Nonwhites	65
Table 11 One-Way Analysis of Variance of CMI-Attitude Scores for Whites and Nonwhites within the Maladjusted Group . . . . .	66
Table 12 Results of CMI-Attitude by Class . . . . .	68
Table 13 One-Way Analysis of Variance of CMI-Attitude Scores for the Grade Level within the Maladjusted Group . . . . .	69
Table 14 Statistical Results of CMI-Attitude Scale by the Self-Report (7 Categories) . . . . .	71

# LIST OF TABLES (Continued)

	<u>Page</u>
Table 15 Breakdown of CMI-Attitude Scale by Self-Report for Well Adjusted and Maladjusted Subjects. Mean and Percentages . . . . .	72
Table 16 One-Way Analysis of Variance of CMI-Attitude Scale by Self-Report (7 Categories)	73
Table 17 One-Way Analysis of Variance of CMI-Attitude Scale of Self-Report within the Maladjusted Group . . . . .	74

Abstract of Dissertation Presented to the Graduate Council  
of the University of Florida in Partial Fulfillment of the Requirements  
for the Degree of Doctor of Philosophy

CAREER MATURITY OF EMOTIONALLY MALADJUSTED  
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June, 1976

Chairman: Elias L. Tolbert

Major Department: Counselor Education

Work is very important in the individual's life. It affects many aspects of his personal development and determines his values and attitudes; it influences his relationships with others.

One method of dealing with the person is the holistic point of view where man is viewed as a whole, complete, undivided, which means that his vocational development is determined by his personality and vice versa.

This holistic point of view has been adopted by counselors, especially in vocational counseling. Many studies have shown the relationship between psychological variables and vocational behavior, i.e., how emotions, feelings, ego functioning, and other personality variables relate to vocational development. These studies support the idea that "the whole is more than the sum of its parts."

This study was designed to examine the differences in career maturity of high school students compared with level of adjustment, race, sex, and grade level and to assess the relationship between career maturity and level of adjustment.

The Career Maturity Inventory - Attitude Scale (CMI-Attitude) was administered to a total of 364 high school students. All subjects also took the Minnesota Counseling Inventory (MCI). Scores on the Emotional Stability Scale (ES) of the MCI were used to classify students into two groups: Emotionally maladjusted, and well adjusted. Scores of .75 standard deviation above and below the mean on the ES scale were used to obtain these two groups.

A sample of 181 subjects was used to investigate the dependent variable--career maturity. The research hypotheses are: 1) There is no difference in career maturity of high and low maladjusted high school students. 2) There is no difference in career maturity of male and female high school students. 3) There is no difference in the career maturity of white and nonwhite high school students. 4) There is no difference in career maturity of the four grade levels (9-12) of high school students. 5) There are no interactions in career maturity among the variables listed.

Results revealed that a significant difference in career maturity exists between the maladjusted and well adjusted high school students. It has been found also that a significant difference in career maturity also exists among the classes, 9-12. Investigating the career maturity of sex variable indicated that no significant differences exist between male and female. Results indicated that a significant difference in career maturity exists between white and nonwhite high school students.

Responses obtained from the maladjusted and well adjusted students to the self-report question revealed that the highest percentage of responses was indicative of educational planning. However, the percentage of well adjusted students was higher than the percentage of maladjusted students on both educational categories. Percentages of maladjusted students, however, were higher than well adjusted on the personal, vocational, and combined personal and vocational categories.

A correlation of  $-.52$  was found between career maturity and level of adjustment. This indicates that those students who are emotionally maladjusted are more likely to be vocationally immature.

Career maturity seems to be a reflection of general personality development and must be taken into account in effective vocational counseling. This conclusion supports the close relationship between emotional and vocational adjustment.

The findings suggest that investigations should be made to determine what changes in career maturity take place among the emotionally maladjusted high school students when they improve their behavior and adjustment level, and how improvement in career maturity affects behavior in general.

## CHAPTER I

### INTRODUCTION

Work is very important in the individual's life. It affects many aspects of his life--how long he lives, his health, wealth, status and prestige in society, and his mate selection (Morea, 1972). All of these are affected both directly and indirectly by the occupation a person chooses. It also affects him personally--his values, his attitudes, his job determine the people he conducts business with and his environment (Holland, 1973). It is not unusual today, when a person introduces a friend, to say, "This is Mr. Jones; he is working as . . . ." This shows the importance and the influence of a person's job in his relationship with others. Whether we look at man in the work world as an economic man, or social man, or self-actualizing man, we see that work is essential to man from these three aspects.

In this study, I deal with the person as a whole, complete, undivided individual which means that his choice of job is determined by his personality, and vice versa, his personality affects his choice of a job. This applies the holistic point of view of Freud and Maslow by looking at the whole, the entire, the complete personality.

Morea (1972) says,

The holistic approach is concerned primarily with the study of a total personality, examining its internal structure and dynamics. The essential idea of holism is the Gestalt dictum that the whole is more than the sum of its parts. If this is so, then analyzing the individual into parts and comparing individuals in terms of such elements is of doubtful validity. (pp. 37-38)

This holistic point of view had been adopted in the work of counselors and especially in vocational counseling. During the last two decades, there has been a significant developmental emphasis on the study of vocational behavior (Crites, 1971; Ginzberg, Ginsburg, Axelrad and Herma, 1951; Super, 1953, 1957; Tiedeman and O'Hara, 1963). These developmental theories view vocational behavior as an on-going process that takes place over a period of several years and not as a single decision event. This decision is determined by psychological, physiological and environmental conditions (Tolbert, 1974). The individual progresses through a series of stages; in each stage he must face and cope with a crisis (Erikson, 1963, 1968). This process will affect the individual's personality development in changing his career behavior. Increased attention has been given to the importance of personality variables in the vocational development process and how vocational choice is affected by the individual's feelings, emotions, ego functioning and other personality variables (Zaccaria, 1965; Super, 1953; Ginzberg et al., 1951). Special attention has been given to vocational counseling in high schools,

especially to the degree of career maturity manifested by these students (Super and Overstreet, 1960; Crites, 1965).

Super stated: "Emotionally maladjusted persons who have genuine problems of vocational adjustment which can be worked on directly will find that improvement in the latter will bring about improvement in the former." (Super, 1955, p. 218) Super implies here that "genuine problems" are those not involving psychosis.

Dealing with the career maturity of the student confirms the involvement of the total human being (Martin, 1971). It is hard to deal separately with vocational development without dealing with the whole person. Beilin (1955) in his article observed that there is hardly any aspect of development which is not affected by some other aspect. In order to understand the behavior and growth of any individual, it will be better if one examines each aspect in terms of its relationship to other aspects of growth (Kuhlen, 1952). Thus vocational development is a need that a person acts to fulfill, and if a person cannot fulfill this need, it affects the structure of his personality.

A well adjusted person fulfills all of his own needs without postponing any of them too long and does not interfere unduly with other people fulfilling their needs (Thomas, 1967). This suggests that a person has two commitments: a responsibility to himself (the personal aspect) and a responsibility to others (the social aspect).

The relationship between emotional or personal problems and vocational planning requires counselors to attend to the vocational behavior of the emotionally maladjusted student in the hope of helping them fulfill their fullest potential (Maslow, 1954). Career maturity is clearly related to one's personality adjustment. Many researchers (Crites, 1961, 1971; Bartlett, 1968, 1971; Bohn, 1966; Barahal, 1953; Irvin, 1968; Williamson, 1965; Munley, 1975) consider the concept of vocational maturity as a variable of the whole personality development.

Super (1957) was one of the first theorists to deal with vocational behavior at various ages in life. He defined vocational maturity as "the degree of development, the place reached on the continuum of vocational development from exploration to decline." (Super, 1955b, p. 153)

Crites defines the career maturity in terms of degree and rate: the "degree of vocational development refers to the maturity of an individual's vocational behavior as indicated by the similarity between his behavior and that of the oldest individual's in his vocational life stage. Contrast rate of vocational development refers to the maturity of an individual's vocational behavior in comparison with that of his own age group." (Crites, 1961, p. 259)

The present study, then, will deal with the career maturity and planning of those students who are emotionally maladjusted and who are in need of help from counselors in both areas, vocational and personal.

### Rationale of Study

The need for this study stems from the writer's own experience with indecisive high school students. They also consistently appear to have personal problems. That their indecision might be affected by their personal maladjustment seems tenable.

The interrelationship between adjustment, educational achievement, and vocational maturity as dimensions of development in adolescence has been investigated by many. Crites and Semler (1967) found that early adjustment was related not only to later adjustment but also to subsequent educational achievement and vocational maturity with correlations of .05 and .21. The current adjustment in 12th grade correlated even higher; it correlates .22 and .24 on vocational maturity.

Thomas (1967) believes that choosing a career and being vocationally mature is a major responsibility. Being vocationally indecisive might be one of the defense mechanisms that the student uses. This might be a "psychological escape" in terms of Thomas, when it involves mentally moving away from the conflict or the frustrating situation. Thus maladjustment may result from an inaccurate concept of reality.

It is the responsibility of the school counselor when dealing with the student to counsel him or her as a whole, taking into consideration personal growth as well as vocational development. The counselor should recognize the importance of the psychological aspects of vocational counseling

(Samler, 1961). In counseling we are dealing with the whole individual; we cannot divide him into segments and deal separately with his vocational, educational and personal problems. These are interrelated problems. Accordingly, Barahal (1953) indicated that a sound vocational plan must include a program which enables the client to "work out" his emotional problems.

Patterson (1966) wrote to the professional preparation and standards committee of the American Personnel and Guidance Association that

counselor education programs do not prepare vocational counselors, educational counselors, or personal counselors as such, but prepare counselors who are qualified to deal with all of these areas. All counseling deals with the total counselee. It is not possible to categorize his needs into educational, vocational, social, or emotional. Thus, in order to deal adequately with the vocational aspects (or any other single aspect) of counselee's development, the counselor must be also prepared to recognize and deal with other aspects of his development. (Patterson, 1966, p. 64)

An increasing number of students entering post-high school education or leaving high school do not know what to do and where to go. This number parallels the increasing complexity of the world of work.

As mentioned previously and as will be mentioned in Chapter II, several studies have dealt with the relationship of career maturity and personality variables. It is important

then to know how emotionally maladjusted high school students will behave vocationally, to what extent and degree they are vocationally mature. Research indicates that well adjusted students are more vocationally mature than those who are maladjusted. Maladjusted students have been found to have lower scores in career maturity and other variables of vocational development (Bartlett, 1971).

It was felt that these students (emotionally maladjusted) differ in their conceptions of themselves as persons, and in their attitudes toward parents as well as peers. It also seems likely that students, if emotionally disturbed, would differ from students who are well adjusted in terms of their future planning and maturity careers.

It was also the concern of this study to find if there are any differences in the career maturity of emotionally maladjusted high school students related to the following variables: 1) sex, 2) grade, 3) race. The following questions were posed:

1. Do emotionally maladjusted high school students differ in their career maturity from well adjusted students?
2. Does sex of emotionally maladjusted high school students affect this difference in career maturity?
3. Does race affect this difference?
4. To what extent does grade level of emotionally maladjusted and well adjusted high school students affect career maturity?

Both career maturity and personality adjustment are constructs of the whole personality. However, several studies have investigated them separately theoretically.

The present study, thus, was an effort to extend the work of earlier researchers who have assumed that personality characteristics are reflected in vocational behavior. The present study attempted also to fulfill the need that other researchers felt to test more specifically the "assumption that vocational maturity is related to personality development." (Bartlett, 1971, p. 226)

### The Purpose of the Study

The purpose of this study was to find the relationship between emotionally maladjusted and career maturity of high school students. The two groups will also be compared using the following variables: 1) sex, 2) grade level, 3) race.

### Definition of Terms

High school students. Those are students entering four-year school, 9th through 12th grade, between the ages of 13 and 18. In this study, adolescent and high school students will be used interchangeably.

Emotionally maladjusted high school students. The terms emotionally maladjusted or emotionally handicapped, or emotionally disturbed, suggest that the child's difficulties are not due to a lack of learning capacity or health handicap, physical disability, or a severe psychopathology. It refers to the high school student with potential ability who is not succeeding in school because of emotional problems. Operationally defined as those students who fall .75 standard

deviation above the mean in the Emotional Stability (ES) Scale of the Minnesota Counseling Inventory (MCI).

Well adjusted high school students. This term refers to those students who function well according to their capacity, relating well to their peers and family. Such students are described as seldom worrying, are not likely to be self-conscious nor lacking in self-confidence. They are operationally defined as those students who fall .75 standard deviation below the mean in the Emotional Stability Scale of the Minnesota Counseling Inventory.

Career maturity. Crites' definition of career maturity is adopted for this study. It is the similarity between the individual's vocational behavior and the behavior of the oldest people in his life stage. His vocational behavior is also compared with his own age group (Crites, 1961).

Holistic approach. Approaching the person as a whole, rather than dealing with any single aspect of his functioning.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

This chapter will deal with the literature that was found to be related to the vocational behavior of individuals. It will also identify the studies that deal with the relationship between career maturity and emotionally maladjusted high school students. Thus the review of the literature is divided into the following four sections:

1. The meaning of work to the individual
2. Vocational development and personality
3. Vocational development and adolescence
4. Career maturity and adjustment

#### Meaning of Work to the Individual

Work is a setting where the individual can find himself. In it the person can satisfy his needs and fulfill his potential (Samler, 1961; Small, 1953; Maslow, 1954).

Williamson (1965) indicates the importance of work as an experience in freedom of choice. Work is not merely an economic necessity for society; it is a personal necessity in "affording to the individual the means of unfolding his full capabilities and potentiality." (p. 12) After World War II, personal counseling was separated from vocational

counseling. Later on these two separate services were finally integrated in 1957 (McCully, 1957). Samler (1961) discussed more the integration of traditional counseling and the personality dynamics and stated that an occupation is a way of living, not only an economic activity. He argued against dealing only with the economic man; he wanted to deal also with the psychological man. Work after all, he insisted, is only another setting for the functioning of the personality.

Maslow (1954) emphasized the necessity of work for the healthy personality; "What a man can be, he must be (p. 9)." The role of the counselor, therefore, is to find ways of (1) helping the student to want to become what he or she ought to become, (2) helping him or her to better actualize his or her best potentialities, (3) helping him or her to become a healthy and functioning person. How can a person become what he ought to become if not in work and in choosing a career? Work was described by Tolbert (1974) as a critical need. In his words,

The choice of work is one of the most important decisions one makes. It determines to a large extent how time will be spent, who will be chosen as friends, what attitudes and values will be adopted. The job provides an identity for the individual. Loss of work has disastrous effects. The unemployed begins to question his or her identity and purposes in life. (p. 1)

Tolbert (1974) emphasizes the difficulty of the task of choosing a career, especially in these days where "the increasing complexity of the work world and the proliferation of choices makes the task of career planning more difficult.

As Toffler (1970, p. 264) so vividly describes it, the problem is 'overchoice' rather than a poverty of choices."

If we look at man from the holistic point of view, we can understand how work affects many aspects of life (Morea, 1972; Small, 1953); choosing friends, spouse and one's whole life style (Holland, 1973; Elton, 1971).

Studies of vocational choice have repeatedly shown that people in one vocational group differ greatly from people in another in their interests, attitudes, values, aptitudes, and personalities (Astin, 1958; Astin and Nichols, 1964; Hammond, 1956; Holland, 1962, 1973; Plant and Minium, 1967; Elton, 1971).

Massimo and Shore (1963) reported a study of a comprehensive vocational psychotherapeutic program with adolescent delinquent boys. This program was designed to help a group of adolescent delinquent boys who had left high school. It was an attempt to reach these youths by focusing on employment as an entree for other services such as emotional education and psychotherapy. It was clear from their study that the comprehensive treatment program, combining the psychotherapy and remedial education within the job placement, had positive results in academic learning, personality attitudes, and other behavior. The subjects showed positive change in their functioning toward themselves and showed also control of their aggression. The authors believed that disturbed adolescents need psychological, educational, and vocational help in order to restructure their lives.

A follow up of three cases (Shore and Massimo, 1966) and another follow-up of ten years (Shore and Massino, 1973) revealed that major improvements in ego functioning continued in areas such as academic, personality, and behavior. In their ten-year follow-up, they also found that eight out of ten of the treated group seemed to have made an adequate adjustment. In contrast, only two out of ten of the control group have made an adequate adjustment, demonstrating that work and job placement are significant to a person's life.

### Vocational Development and Personality

The terms emotionally disturbed, emotionally mal-adjusted, or emotionally handicapped are used to describe those individuals who, for some emotional reason, cannot function well in schools, or in their relationship with their family or peers. They do not have a physical disability. They do not lack the learning capacity. They have the potential for effective "cognitive-affective" functioning in school. These students simply fail to function in school and also have negative feelings about self.

According to Bower (1969), emotionally handicapped children can be identified if the following characteristics are demonstrated to a marked extent and over a period of time:

1. An inability to learn which cannot be explained by intellectual, sensory or health factors.

2. An inability to build or maintain satisfactory interpersonal relationships with peers and teachers.

3. Inappropriate types of behavior or feelings under normal conditions.

4. A general, pervasive mood of unhappiness or depression.

5. A tendency to develop physical symptoms, pains, or fears associated with personal or school problems. (Bower, 1969, pp. 22-23)

Many writers recognize the relationship between personality development and vocational behavior (Super, 1953; Ginzberg et al., 1951; Tiedeman and O'Hara, 1963; Zaccaria, 1965; Munley, 1975). Within the concept of personality are included needs, values, self-concept, preferences, interests, satisfaction. All theories of career development are in some sense related to personality development (Osipow, 1968). Accordingly, any disturbance in personality will affect the vocational development of the individual.

Vocational development theories consider the relationship between personal adjustment and vocational behavior, and the effects of maladjustment on career choice.

Ginzberg and associate (1951) indicated that four variables are involved in the vocational choice during adolescence. The reality factor which relates to the environment; the educational process which related to the amount and kind of education the person had; the individual values that influence the vocational choice; and finally, the emotional factors which determine how the individual will respond to his environment and his personality variables. A

heavy emphasis was placed on the emotional and personal factors in the theory of Ginzberg and his associates when they noticed the deviant vocational choice of their emotionally disturbed subjects. Osipow (1968) pointed out this emphasis when he says,

Ginzberg and his associates place a heavy emphasis on the role that emotional factors play in career development, though their research has not been notably successful in identifying the specific role played by emotional factors in career choice. In designing their investigations, they went to special lengths to exclude subjects who seemed to be emotionally unstable. Despite the screening, several subjects presented evidence of emotional problems upon intensive interviewing. The observations made of the few emotionally disturbed subjects in the sample led the investigators to conclude that emotional problems were important factors in the deviant vocational choice patterns that they occasionally observed. (p. 79)

Special concern has been directed to the vocational choice of maladjusted people by psychoanalytically oriented counseling researchers. Bordin, Nachmann, and Segal (1963) have used the psychoanalytic theory as a frame of reference in explaining the developing needs of individuals and their effect on a person's occupational choices. They tried to develop a psychoanalytic framework based on three occupations, accounting, social work and plumbing to illustrate generalizations for a wide variety of occupations.

Later, Irvin (1968) investigated this framework and compared two groups of students. One was composed of students aspiring to be artists, and the second, students aspiring to be architects. It was hypothesized that in the process of making a career choice, one expresses central personality

attributes. He found that differences exist in the personality of his two groups. Art students generally expressed negative reactions to self, parents, peers, achievement, and learning, whereas architecture students generally expressed positive attitudes in these same areas.

Small (1953) conducted another study which is relevant to the psychoanalytic view of vocational choice. His major assumption was that people are seeking satisfaction from their needs in every aspect of their life, including the vocational. He hypothesized that the person with a healthy ego is in strong control of reality. He is realistic and can postpone satisfactions for a longer time than can a person with a weak ego. Small assumes later that the well adjusted person has a stronger ego and also that vocational choice is a function of that ego. It follows then that adolescents with emotional disturbances are less realistic than well adjusted adolescents in their vocational choice. To examine this hypothesis, he compared the vocational choices of 50 adjusted adolescent boys with 50 emotionally disturbed adolescent boys. He found that the vocational choices of well adjusted boys are more realistic than those of disturbed boys. The choices of the better adjusted boys reflected participation in their environment, whereas choices of maladjusted boys reflected detachment from their environments. He concludes, then, that vocational counseling is most effective with people who have a strong ego and that there is a need for psychotherapy for those with weak egos before counseling them vocationally.

As has been seen, the psychoanalytic approach can be applied in more detail to those who do not have healthy personalities. Osipow (1968) summarized this approach,

As far as describing the process of vocational development in the normally developing individual, the analytic approach is not detailed. If a person is developing normally in general, presumably his vocational life will also proceed according to schedule. If his psychological development is not healthy, then one can expect to see some effects of his difficulties in his work life. Treatment would presumably follow the general analytic method (of one of the derivatives) and would not focus on the career life but on the general development of the individual, based on the assumption that once the developmental pattern is corrected, vocational life would automatically fall into line. Of course, probably no analyst would treat an individual primarily complaining of vocational difficulty, nor is it likely that a person would seek an analyst for such difficulties alone. (p. 101)

Many writers studied the relationship between emotional problems and vocational behavior (Super, 1951, 1955a, 1957; Super and Overstreet, 1963; Crites and Semler, 1967; Crites, 1965; Barahal, 1953; Wurtz, 1966).

Super believed vocational choice is a way of implementing the self-concept (Super, 1951, 1953, 1955a). He looks at counseling from the viewpoint of vocational and personal concerns. In implementing the self-concept, personality variables must be considered. Super (1955a) worked with a client who presented vocational choice and adjustment in combination with problems of emotional adjustment. He hypothesized that when,

working with a client, by relieving tensions, clarifying feelings, giving insight, helping attain success, and developing a feeling of competence in one important area of adjustment, the vocational, it is possible to release the individual's ability

to cope more adequately with other aspects of living, thus bringing about improvement in his general adjustment." (p. 217)

He then concludes that assisting the client to use his assets to make a better vocational adjustment will result in his being able to make a better adjustment in other areas of living. This brought him to believe that "emotionally maladjusted persons who have genuine\* problems of vocational adjustment, which can be worked on directly, will find that improvement in the latter will bring about improvement in the former." (Super, 1955a, p. 218)

Super, in an early article (1951), states that self-concept operates in combination with the environment, such as social and economic conditions. He then indicates (1951) that vocational decisions require the person to explicitly state his self-concept. He feels that counselors should understand the vocational and personal information which will serve as a basis for the implementation of the self-concept. The close relationship that exists between emotional and vocational adjustment is well represented in his writings. Super's treatment of the question of counseling people who are seriously disturbed emotionally and dysfunctional vocationally is new. Traditional counseling assumed that if emotional problems and concerns are resolved, then other problems such as vocational ones will also be resolved. Super points out that experienced counselors knew this not to be the case; in fact, resolution of vocational

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\*Genuineness relates here to persons who do not have psychotic problems.

concerns may help in resolving other general psychological disorders.

Other studies. Many other writers and researchers had investigated the relationship between the vocational development and personality variables. These studies have concentrated on how emotionally maladjusted students behave vocationally. Some researchers believe that in order to understand the vocational development process, one must study the whole personality (Beilin, 1955; Kuhlen, 1952; Lawlis and Anderson, 1972; Crites, 1965; Landis, 1963).

Barahal (1953) in a case study, found that the emotional problems of his client affects the client's vocational planning and that having gained insight in psychotherapy, both his emotional and vocational problems were resolved. Barahal felt that the case study showed the deep relationship between the emotional or personal problems of a person and vocational planning with counseling.

The relationship between personality development and vocational behavior was further validated by Super (1953), Ginzberg et al. (1951), Tiedeman and O'Hara (1963) and Crites (1971). Munley (1975) adopted Erikson's psychological theory of human development. According to this theory (Erikson, 1963, 1968) the individual goes through developmental stages. In each stage he faces and copes with a crisis. Munley concluded that this process will affect the individual's personality development, including his vocational life.

Attention has been given to the personality development of undecided individuals. Baird (1969) found that the undecided student is more intellectually oriented and less vocationally oriented than the student who has made a vocational choice. Ashby, Wall and Osipow (1966) found that the undecided group showed more need for dependence than the decided group. Their implication for vocational counseling is that the counselor should focus on dependency when counseling the undecided student.

Self-esteem was also studied in connection with vocationally undecided individuals. Korman (1969) found that high self-esteem individuals perceive themselves as having the qualities of the vocation they choose. This brings them to choose the vocations that fulfill their needs whereas individuals with low self-esteem seem to choose vocations with little regard for their own needs. In their study, Resnick, Fauble and Osipow (1970) found that the high self-esteem group expressed significantly more certainty about their career choice than did the low self-esteem group.

Harman (1973) concluded that his results were consistent with those of Baird (1969). He reported that scores obtained from the Omnibus Personality Inventory (OPI) for both undecided male and undecided female individuals were within the normal range. This indicated that normal students can be expected to have problems of vocational identity and that the lack of vocational identity for undecided individuals is probably not related to personality problems.

It was also reported that anxiety affects career decision making. Lawlis and Anderson (1972) studied 56 rehabilitation clients. They then administered the Minnesota Multiphasic Personality Inventory (MMPI) and Minnesota Importance Questionnaire (MIQ) to determine what personality factors related to vocational needs. Their results showed that preferences for specific occupational reinforcers are related to personality patterns and that anxious persons try to avoid situations requiring decision making. Kimes and Troth (1974) examined how anxiety relates to both career decisiveness and satisfaction with career decision. A questionnaire was developed and administered to 829 randomly selected undergraduate students. The research indicates the significant relationship between trait anxiety and career decisiveness and also indicates that students who were fully satisfied with the career decision had the lowest mean trait anxiety score. Students who were not really satisfied had the highest mean trait anxiety score.

Many studies examined the relationship between interests and emotional maladjusted individuals. Melton (1956), Izard (1960), Walsh and Russel (1969) conducted their studies on freshmen male and female students who had made congruent college major choices and students who had made incongruent choices. They used the Mooney Problem Checklist to assess personal adjustment and the Vocational Preference Inventory to assess the congruent and incongruent major choices. The research indicated that a relationship existed between career

preferences and personal adjustment. Subjects who made a congruent college major choice reported fewer personal adjustment problems than subjects who made an incongruent college major choice. This was significant for both males and females.

Klugman (1950) studied the range of Kuder scores and performance on the Bell Adjustment Inventory (BAI). He hypothesized that better adjusted subjects would show both a spread and more fields of interest than maladjusted subjects. His study was conducted with 108 counseling clients at a Veteran's Administration Hospital. Overall, his hypothesis was not supported. Instead he found a correlation between high scientific and low artistic interest scores with goal personal adjustment scores on the BAI.

A tendency for maladjusted groups to prefer special occupational areas was found by Steinberg (1952). These occupational areas were categorized by an emphasis in fantasy rather than on practical performance. He also found that the maladjusted individual tends to live more on the level of "wish-fulfilling" fantasy than does the well adjusted.

Building on the data of Klugman (1952), Drasgow and Carkhuff (1964) observed that literary, artistic, and musical interests are correlated with disturbed individuals. They administered the Kuder Preference Record (KPR) before and after psychotherapy and found that in cases where psychotherapy was judged to be successful, the artistic, musical, and literary scores decreased. This appears to indicate that aesthetic interests might be related to emotional disorder.

Nugent (1961) studied the discrepancy between interests and abilities. He hypothesized that emotionally maladjusted behavior existed where there was a discrepancy between interest and abilities. Nugent studied two groups of high school boys; in one group agreement existed between their aptitudes and interests, in the other group a discrepancy existed between these two variables. He administered the KPR to study interests, the Differential Aptitude Test (DAT) to measure ability, and the California Personality Inventory (CPI) to measure personality. He did not find differences in personality adjustment between ninth graders who had high discrepancy or ninth graders who had low discrepancy between interests and aptitudes. However, significant differences in personal adjustment were found to exist at the eleventh grade level.

#### Vocational Development and Adolescents

Adolescence, the period between 12 and 21 years of age, is considered not only as a time of physical maturation, but also a time of psychological development (Graff and Beggs, 1974; Rogers, 1972). Adolescence was defined in a number of ways; for example, as a chronological age span, as a socio-cultural phenomenon, or even as an abstract concept, suggesting an idea or an attitude toward life. For this study, however, adolescents will be considered individuals who are between the ages of 13 and 18. Students in the secondary school grades 9 through 12 are in the process of achieving the atti-

tudes and beliefs needed for effective participation in society. This implies that a healthy and emotionally mature adolescent will accept self and others. The student has a responsibility toward his society as well as toward self; he controls his emotions and will not let his emotions control him.

The adolescent is developing his emotional life and the way he responds to stimuli around him. One of the emotional dimensions that influence an adolescent's life is the integrative or disintegrative effects. Rogers (1972) explained these effects in her book as

contributing to or detracting from goal-directed behavior. The experiencing of emotion can serve such integrative functions as energizing the individual's behavior, maximizing his strength in an emergency, and lending affective tone to his experience. Disintegrative effects can include unhappiness, mental confusion, and undue demands on the individual's energy resources. Whether its effect be positive or negative, however, emotion infiltrates every aspect of human life. The organism operates as a whole, and every cognitive state may have its feeling tone. (p. 111)

Using the holistic approach, Graff and Beggs (1974) look at the adolescence stage as contributing to various developmental tasks,

skills and abilities are developed, attributes and styles of behavior are formed, a more fully articulated concept of the self emerges, and vocational plans and aspirations take shape. The maturation of these processes is crucial in shaping the life of the individual. Almost any index confirms the existence of many difficulties in personal and vocational development for youth during the time they attend secondary schools [emphasis mine]. (Graff and Beggs, 1974, p. 17)

The vocational development of adolescents is affected by many factors: home and family, school and level of education, sociocultural influences, sex, handicaps, minority membership, and personality characteristics (Rogers, 1972, Tolbert, 1974). Adolescents' vocational development (i.e., interests, values, attitudes, decision making, career choice and maturity relates to the fundamental characteristics of personality and the overall concept he has of himself.

Sex differences in vocational development and planning are reported. Each sex appears to be more realistic in one way and not in the other. Boys are more realistic than girls in that they approach career planning in a straightforward manner. Some seem certain about their choices; others recognize that change will occur. Other boys are less realistic in that many of them still are driven by an unhealthy need to succeed (Rogers, 1972).

Each sex has its vocational problems. For the male, according to his role in the family, he has to choose his career between thousands of jobs. His choice, thus, is not easy. Girls find it easy to learn about the few jobs (relatively speaking) accessible to them, while males find it difficult to obtain the information they need.

This does not mean that a girl's choice is easier. They have their own difficulties, too. A girl might not get the information or orientation she needs. This relates to how society defines her role as a worker. Society places such great pressure on her to marry. Therefore, she has

little time or energy left to invest in resolving her identity, either personal or vocational. Furthermore, she does not know how her future husband will look at her on the job. These and other factors make it difficult for females in both their personal and vocational development.

In a longitudinal study, Gribbons (1964) studied the career development of 57 boys and 57 girls randomly selected from nine eighth-grade classes. The same students were tested again by the Readiness Vocational Planning (RVP). The study was concerned mainly with the ability of eighth and tenth grade boys and girls to deal with educational and vocational decisions. Results showed that these students increased in their awareness of interests and values in their relation to occupational choices. Also, they were more willing to take responsibility.

Differences also exist between members of minority groups and the majority groups in their aspirations. In general, choices and goals of minorities represent two extremes, either too high or too low. Rogers (1972, p. 470) explains that "... a boy may seek to compensate for former indignities by aspiring to goals beyond his means to attain. By contrast, another lower class youth may aim too low because he has never tasted the cultural advantages that make him hunger for more; or he may have attended a segregated school where intellectual standards were low. He may also lack detailed knowledge of high-status persons with whom to identify. Therefore, low-status boys often aspire to low-status posi-

tions regardless of their own capabilities." She explains the aspirations of black youth. "Among blacks the mother is the prime authority figure for children of both sexes; she is also the one who largely determines her children's educational aspirations. The father's importance is correspondingly reduced. As a result, the black youth is less likely than the white youth to be obsessed with the need for a distinctly masculine occupation." A difference in interests between black students and white students was found to exist. Bayer and Boruch (1969) reported a study that includes 5,384 black students from 19 predominantly black four-year colleges and 1,956 black and 25,820 white students in 200 predominantly white four-year colleges. They found that black males selected teaching and social service occupations more often than white males.

A study that supported the above findings was conducted by Hager and Elton (1971). They compared the vocational interests by administering the Strong Vocational Interest Battery (SVIB) to black male freshmen and white male freshmen. They found that white male students differ from black male students on a bipolar factor of interest in science versus interest in service to people.

In a study conducted by Singer and Steffler (1954), the researchers found that high school senior boys differed from high school senior girls. Boys were found to prefer occupational values of power, profit and independence, whereas the girls were found to prefer the job values of interesting experience and social service.

Wagman (1965) compared high school students' vocational preference with adults from the university (sophomore students). He found that high school students of both sexes prefer selecting a job which is secure, where the adults in university settings are looking for jobs where they could be independent. He also found that high school girls, like college women in their sophomore year, are making the traditional job choices of social, secretarial work, teaching, child-rearing, and others. This difference was found to be more highly significant than in the Singer and Steffler study (1954) mentioned above. This shows that stereotypes concerning man's and woman's roles in society still exist.

Small (1953) compared the vocational choices made by adjusted adolescent boys and disturbed adolescent boys and found that adolescents with emotional disturbances are less realistic in their vocational choice than are better adjusted adolescents. Super and Overstreet (1960) studying the vocational maturity of ninth-grade boys, found that as one becomes older, his vocational behavior becomes more goal-directed, more realistic, and more independent.

In a study conducted by Myers, Lindeman, Thompson, and Patrick (1975) investigating the effect of the Educational and Career Exploration System (ECES) on 792 tenth graders, no significant difference was reported between boys and girls, users and nonusers of the program.

In his study, Bower (1969) found that boys tended to resolve their problems outwardly and were concerned with

doing something active about life's situations as a means of releasing tension while girls were more preoccupied inwardly with their feelings and their symptoms. He also did not find a significant difference in the individual IQ tests between emotionally handicapped students and other students in the study.

An investigation of career maturity and development of high school students was done by Gesell, Ilg, and Ames (1956). It is interesting to mention that the research found the eleventh-grade students are more tentative and open-minded and that they have a better appreciation of the complexity of the career problem.

Astin (1967) reported a study which was designed to assess the career expectations of 650 male high school seniors on the basis of their personal characteristics when they were in the ninth grade. When interest and career choice were used as measures, ninth grade was the best predictor of outcomes at the twelfth-grade level. She also found that entry into the ninth grade is a critical point because it is usually then that the student has to decide between an academic or vocational high school program. The senior year is critical because the student is faced with the alternatives of employment of further education.

In another study related to the late adolescence, Karr and Mahrer (1972) investigated whether seniors would have significantly more problems than juniors; whether the problems would cluster into discernible adjustment areas;

and whether both amount and kinds of personal problems would be related to vocational development. They used the Mooney Problem Checklist to assess the personal adjustment problems. To check biases due to defensiveness or social desirability factors, the MMPI K scale was used. Results indicated that students have an increased number of personal problems during the senior year, specifically when vocational choices need to be made. Moreover, they found that problems clustered into specific adjustment areas. It was also noticed that problems accompany the transition from adolescence to adulthood.

It appears then that transitional problems must be worked through successfully prior to further growth and development. It is beneficial also to consider elements of stress and coping resources necessary for dealing with the transition from high school to college.

### Career Maturity and Adjustment

Career maturity has been investigated by many writers and defined by two different approaches:

1. The absolute or relative approach, which is the position of Super.
2. The degree and rate approaches which Crites advocates (Bartlett, 1971).

Super (1955b) defines vocational maturity as "denoting the degree of development, the place reached on the continuum of vocational development from exploration to decline." (p. 152) Super added three conceptualizations of vocational maturity.

These were viewed as "(1) the ratio of vocational maturity (one's actual life stage) to chronological age, (2) the ratio of actual life stage to expected life stage, and (3) the ratio of actual life stages to the vocational behavior of others." (Bartlett, 1971, p. 218) As a result of these definitions and to establish criteria for vocational maturity, the absolute or relative approach was evolved. Super and Overstreet (1960) used five dimensions to measure vocational maturity: (1) orientation to vocational choice; (2) information and planning about the preferred occupation; (3) consistency of vocational preferences; (4) crystallization of traits; and (5) wisdom of vocational preferences. Bartlett (1971) mentioned a study of a ten-year analysis of Super, Kowalski and Gultkin (in press). They found that parental socioeconomic level still played an important role in vocational development. Moreover, vocational maturity was found to be influenced by aversive parent-child relationships (Woodbury and Pate, 1974). Other major research approaching career maturity as a relative and an absolute were done by Gribbons (1964) and Gribbons and Lohnes (1965). In his research Gribbons (1964) developed the Readiness for Vocational Planning (RVP) scales to measure career maturity. Eight variables were reported as dimensions to maturity. These were (1) factors in curriculum choice, (2) factors in occupational choice, (3) verbalized strengths and weaknesses, (4) accuracy of self-appraisals of abilities, (5) rationale for abilities, (6) interests, (7) values, and (8) independ-

ence of choice. They found that many eighth graders scored above the tenth-grade means. It appears then that "counselors should assist young people at an early age to an increased awareness of their personal value hierarchies, to the improvement of their values, and to the integration of their values and their aspirations and plans." (Gibbons and Lohnes, 1965, p. 252)

Crites, on the other hand, defined the second approach to career maturity as "the maturity of an individual's vocational behavior as indicated in his vocational life stage... in contrast, rate of vocational development refers to the maturity of an individual's vocational behavior in comparison with that of his own age group." (Crites, 1961, p. 259)

Crites believed that according to this definition, career maturity can be measured. Another instrument that measures vocational maturity is the Cognitive Vocational Maturity Test (CVMT) developed by Westbrook and Parry-Hill (1973). It was organized according to Crites' model of vocational maturity and was based on the constructs developed by Super in the Career Pattern Study (Bartlett, 1971). The CVMT measures six areas of cognitive vocational maturity: (1) fields of work which include the knowledge of which occupations are available; (2) job selection, which includes the ability of the student to choose the most realistic occupation in accord to his abilities, interests, and values; (3) work conditions, locations of job and income levels of jobs are included; (4) education required; (5) attributes;

and (6) duties, which includes the activities required for the occupation (Westbrook, Parry-Hill and Woodbury, 1972).

Many other researchers investigated career maturity and relate the process to different dimensions. Dilley (1965) related his Decision Making Inventory (DMI) to career maturity. He administered his DMI to high school seniors and found that intelligence, achievement, and participation in extracurricular activities were related to career maturity. Mathewson and Orton (1963) using a maturity scale consisting of seven dimensions, found that the relationship between maturity and age, sex, intelligence, achievement, social level and family were not significant. However, they found that a relationship exists between career maturity and extra-curricular activities.

Vriend (1969) administered his Vocational Educational Survey to high school seniors to measure six dimensions of career maturity. These were (1) school achievement; (2) agreement between levels of vocational aspirations and expectation; (3) vocational and educational planning; (4) participation in activities in and out of school; (5) vocationally related self-knowledge; and (6) job knowledge. He found that the school achievement factor was the best predictor of career maturity.

Nelson (1956) related career maturity to job satisfaction. He believed that expressed choices had to be in harmony with interests and aptitudes. His definition of career maturity was similar to Super's (1955a) wisdom of

choice dimension but was different in that he had only two categories of career maturity, mature and immature.

In summary, the studies reviewed showed that career maturity is a measurable constant that has been systematically and thoroughly researched. It is for applied purposes that most researchers in theory differentiate between career maturity and personality development. Career maturity development does not differ from general personality development.

Bartlett (1971) reported a study by Heath (1965) who investigated mature and immature college men. Bartlett stated Heath's five developmental dimensions that defined a maturing person. A mature person according to Heath is (1) more stably organized; (2) open and seeks information which is congruent with his self-organization; (3) organized progressively around internalized reality given; (4) more able to coordinate his external and internal worlds; and (5) more autonomous and not immediately controlled by his immediate environment. Bartlett (1971) translated the Heath model into vocational terms. The vocationally mature person is

(1) more organized in terms of involvement in the vocational choice process and less disturbed by threatening experiences; (2) open to and seeks new self and occupational information; (3) more aware of reality (allocentric) forms of information rather than personal need-dominated (autocentric) forms; (4) more aware of his internal (self-concept) and external (world of work) worlds through symbolic representation; and (5) more independent in the choice process and not immediately controlled by his immediate environment, by his motivational state, or by his earlier childhood history.

If such a translation is appropriate, one can assume that the more vocationally mature individual, when compared with the vocationally immature individual, would be less disturbed by threatening experiences, more personally competent and self-directing, more self-actualizing through achievement and is more attracted to other people [emphasis mine]. The autocentric orientation of the more vocationally immature individual would include inaccurate self-images, develop numerous psychological defenses in not accepting the responsibility for his own personal characteristics. (Bartlett, 1971, pp. 225-226)

Bohn (1966) in his study used the Interest Maturity (IM) scale of the Strong Vocational Interest Blank (SVIB) as a measure of personality. His assumption was that individuals with high IM scores would have personality profiles that were more mature than those with low IM scores. His findings supported his assumption. He found that individuals with high IM scores were more achievement oriented, independent, and more adjusted in general. Bohn (1966) concluded then that "vocationally mature individuals are more mature not only in occupational attitudes and orientations, but also in personality characteristics. Vocational maturity seems to be a reflective of general personality development and must be taken into account in effective vocational counseling." (p. 125)

Bartlett (1968) in another study administered the Vocational Maturity (VM) of the VOI as a measure of vocational maturity and the ACL to measure the personality variables. He found that individuals with high VM scores were more self-confident, achievement oriented, independent, and better adjusted in general.

Crites (1971) reported a study which had been done by Hollender and Schalon (1965) correlating career maturity with the MMPI in a sample of male and female clients from a university counseling service. In this research, the authors suggested a possible association between deviant responding and poor adjustment.

The concept of intelligence was investigated in relation to maturity. Asbury (1968) obtained an  $r$  of .28 between the Attitude Scale of Crites (1965) Vocational Maturity Index and the Otis Quick Scoring IQ Test. This agreed with the findings of Super and Overstreet (1960) who found a correlation of .29 between intelligence and vocational maturity in the ninth grade level. Also Gribbons and Lohnes (1968), as reported by Crites (1971), found multiple  $R$ 's between vocational maturity and intelligence of .57 in the eighth grade and .23 in the tenth grade. It seems that there is a relationship between intelligence and career maturity as well as a relationship with the non-intellective variables (Crites, 1971).

Heilbrun (1960) found, when dealing with adjusted and maladjusted students, that those clients who were more vocationally mature in their attitudes were also more task oriented and better adjusted.

Crites and Semler (1967) investigated the interrelationships of adjustment, educational achievement, and vocational maturity as dimensions of development in adolescence. They found that both educational achievement and vocational maturity

were related to each other. They also found that adjustment was producing the correlation between education achievement and vocational maturity. This agrees with findings of Dysinger (1950) and Ginzberg et al. (1951) which indicate that vocational choice is a function of general maturity.

Crites and Semler (1967) concluded that "adjustment appears to be a super factor on which both educational achievement and vocational maturity have 'loadings,' the relationship between them being a function of this communality. The better adjusted adolescent, as perceived by his counselors and teachers, is more educationally advanced as well as more vocationally mature [emphasis mine]." (p. 495)

Attempts have been made recently to facilitate the career maturity of high school students. These have been based on the belief that career maturity as a developmental process can be measured and facilitated through counseling and that improvements in career maturity will involve improvements in other areas. Krumboltz and Schroeder (1965) have demonstrate that reinforcement techniques promote career planning and that information-seeking behavior is increased by the use of reinforcement.

Gilliland (1968) conducted research investigating the outcomes of small group counseling with Negro students. He used pre- and post-tests on random experimental and control groups. Ages ranged from 15 to 19 years old for the boys, and 14 to 17 for the girls. There were two experimental

groups, one of seven boys and another of seven girls. Random control groups of eight boys and eight girls were also selected. He investigated the outcomes of small group counseling on achievement, occupational aspiration, vocational maturity, adjustment, and values. The results showed that small-group counseling enhanced the achievement level, personal functioning, personality adjustment, and vocational maturity of the subjects.

In testing the effectiveness of a high school psychology course, Graff and Beggs (1974) conducted an experiment on 110 junior students who were enrolled in a psychology course. Ninety-nine juniors and seniors who did not take the course were randomly selected as a control group. The Personal Orientation Inventory (POI) and the Vocational Maturity Scale were administered in a pre- and post-test. A three-month follow up was also included. Their results indicated that students in the psychology course showed more positive mental health and more vocational maturity than did the students in the control group.

Similar to Gilliland's (1968) research was that done by Flake et al. (1975). They examined the effectiveness of short-term counseling on career maturity of tenth-grade students. The Career Maturity Inventory was administered to a random sample of 87 tenth-grade students. The subjects whose score fell below the mean were assigned randomly to experimental and control groups. As a result, 17 students were assigned to the experimental group and received special

counseling for six weeks. Results from administering the CMI at the end of the six-week period indicated that career maturity can be influenced and facilitated by a program designed to strengthen mature responses of students who have evidenced immaturity.

The assumption that vocational choice is an integral part of the total personality development and that career maturity relates to total maturity was investigated by Nugent (1968). He compared high school males who had low verification (V) scores on the Kuder Vocational Preference Record (KPR) with high school males who had acceptable V scores. He used the California Psychological Inventory (CPI) to investigate whether personal conflicts might contribute to low V scores. Results indicated that students with acceptable V scores showed significantly higher mean scores in the CPI. The author concluded that V score might be considered one index of personal and social maturity.

Self-concept was found to be an important variable in determining the individual's vocational role, especially during adolescence. As one aspect of personality, Putnam and Hansen (1972) investigated its relationship with vocational maturity. They looked at the relationship of the feminine role and self-concept to vocational maturity. Three hundred seventy-five girls were drawn from four schools in western New York. They were primarily 16 year olds from middle-class families. A feminine role rating inventory, Self-Concept Scale, Vocational Development Inventory, and a

personal data form were used. Results showed that self-concept was significantly associated with vocational maturity. The way a girl perceives her role will determine the level of her vocational maturity.

In a recent study investigating the relationship between psychological development and career maturity, Munley (1975) hypothesized that individuals high in career maturity will show a significantly higher level in psychological development across Erikson's first six stages than subjects low in career maturity, and individuals higher in career maturity will demonstrate more successful resolution of their identity than individuals low in career maturity. He used CMI scores as the independent variable and the Inventory of Psychological Development to measure the ego identity as a dependent variable. He found that career maturity has a strong linear relationship with all the stage crises resolutions. If a person is high in career maturity, he tends to demonstrate a more successful resolution of all the stage crises. This indicates that vocational development takes place within the broader framework of psychological development. This showed also that "the adjusted group is the most successful in resolving the six stage crises." (p. 318)

### Summary

Work is very important in an individual's life. It determines the person's life, friends, values, attitudes,

and personal identity. All theories of vocational development stress the significance of work to the individual and the effects on personality development.

A person is seen as an entire, total organism. Any one aspect of his development will affect his total development. Career maturity is one aspect of his development. If a counselor wants to facilitate the counselee's career maturity, he must deal with the personality development and not just the isolated vocational development of the counselee.

In administering vocational counseling services to high school students, counselors should reach the undecided and the immature students. This should involve more than simply providing vocational assessment and occupational information. It may need to extend into personal-emotional areas in an attempt to provide corrective emotional experiences. Helping students with emotional problems in order to make them vocationally mature is the job of the counselor. To do so there is a need to reach all students, not only those who are undecided. Counselors then face the question of how to provide outreach and preventive vocational counseling services.

## CHAPTER III

### METHODOLOGY

The purpose of this study was to compare the career maturity of well adjusted high school students and emotionally "maladjusted" high school students. Career maturity (the dependent variable) will be examined by administering the Career Maturity Inventory Attitude Scale (CMI) of Crites (1973b). The Minnesota Counseling Inventory (MCI) will be administered to students in high school to obtain the two groups, the "well adjusted" group and the emotionally "maladjusted" group. The relationship of career maturity to adjustment level will be investigated for the following variables: (a) sex, (b) race, and (c) grade level.

The remainder of this chapter will explain in detail the research procedures. It includes:

- (1) instruments to be used
- (2) the sample
- (3) hypotheses
- (4) data collection
- (5) analysis of the data

## Instruments

### Minnesota Counseling Inventory

The Minnesota Counseling Inventory (MCI) constructed by Berdie and Layton (1957), is derived from the Minnesota Multiphasic Personality Inventory (MMPI) and the Minnesota Personality Scale (MPS). The MCI provides a means whereby teachers, counselors, and others working with high school age youths can get the information about the personality dynamics, personality structure, and personality problems of young people. It has been designed primarily for students in grades nine through twelve; however, the data indicates that it may be appropriate for college freshmen as well. It can be administered in about 50 minutes. Although there is no time limit for taking the test, students are asked to work as rapidly as possible.

The specific purposes of the MCI, as listed in the manual (Berdie and Layton, 1957, p. 3), are as follows:

1. to sensitize teachers and counselors to relevant personality characteristics differentiating students.
2. to identify students in need of therapeutic attention.
3. to assist in understanding students as they attempt to achieve more mature self-understanding and integration between themselves and their environment.
4. to provide a means for determining the effects of educational experiences upon relevant personality characteristics.

The authors advise that the inventory should not be used with children of less than an eighth-grade reading level and/or with children who are psychotic or severely disabled because of major psychological disturbances.

The test is composed of 355 items in the form of statements. The student reads each statement and decides whether it is true or false as it applies to him and marks his answer on a separate answer sheet. The MCI yields nine scores. Three of these nine assist in identifying areas in which students may be adjusting particularly well or poorly. These are: (1) Family Relationships (FR), (2) Social Relationships (SR), (3) Emotional Stability (ES). Four scores provide information more directly related to the methods students employ in making adjustments. These are: (4) Conformity (C), (5) Adjustment to Reality (R), (6) Mood (M), (7) Leadership (L). The remaining two scores are to check the attitude toward test taking. These are: (8) Question (?), (9) Validity (V). The norms for the MCI scales consist of standard score equivalents for raw scores. There are four groups: (1) boys in grades 9 and 10; (2) girls in grades 9 and 10; (3) boys in grades 11 and 12; (4) girls in grades 11 and 12. The raw score for each scale was equated to 50 and the standard deviation of raw scores was set equal to 10.

In determining the validity of the MCI, one must consider the validity of combinations of scores and the validity of individual scores. As yet there is no evidence available concerning the validity of various combinations of the MCI

scores; single scores will be used as sources of information regarding individuals. Combinations of scores should be used by counselors carefully to make generalizations about the student's personality.

Evidence concerning the validity of the first seven scores was obtained by the authors: They gave teachers 14 rating forms, each containing a description of behavior characteristics of either a high or low rating on one of the psychological variables measured by the MCI. Teachers supplied the names of those students who conformed most closely to the description given in each rating form. In addition, special nomination groups were obtained from school nurses, counselors and principals. In the analysis of the data, comparisons were made between the mean scores of teacher-nominated groups and the special groups.

Two types of reliability are reported for the scales of the MCI (see Tables 1 and 2). The odd-even reliability coefficients were corrected by the Spearman-Brown formula. The highest coefficients were found for the three scales: Family Relationships (FR), Social Relationships (SR), and Emotional Stability (ES).

#### Career Maturity Inventory - Attitude Scale

The Career Maturity Inventory - Attitude Scale (CMI-AS) was constructed by Crites (1973a) based on his career development theory. It was formerly called the Vocational Development Inventory, and it is a product of 12 years of research

Table 1

Odd-Even Reliability Coefficients for the Diagnostic  
Scales of the MCI

SCALE	STUDENTS IN GRADES 9 and 10					
	Boys (N=200)			Girls (N=200)		
	r	Mean	SD	r	Mean	SD
Family Relationships (FR)	.89	8.9	6.2	.90	9.7	7.4
Social Relationships (SR)	.93	23.6	11.9	.94	22.1	11.9
Emotional Stability (ES)	.86	14.0	7.7	.82	16.6	7.5
Conformity (C)	.60	12.9	3.8	.80	16.5	6.1
Adjustment to Reality (R)	.87	13.6	8.0	.88	13.0	11.8
Mood (M)	.57	12.5	4.3	.62	14.8	4.9
Leadership (L)	.77	13.5	4.3	.73	13.4	4.9

SCALE	STUDENTS IN GRADES 11 and 12					
	Boys (N=200)			Girls (N=200)		
	r	Mean	SD	r	Mean	SD
Family Relationships (FR)	.86	8.9	6.3	.93	10.5	7.9
Social Relationships (SR)	.94	18.9	11.1	.95	20.7	12.5
Emotional Stability (ES)	.81	12.7	6.7	.81	16.9	6.9
Conformity (C)	.56	12.6	3.9	.68	12.1	4.4
Adjustment to Reality (R)	.88	10.7	7.1	.85	12.4	7.3
Mood (M)	.66	11.4	4.3	.63	13.3	4.3
Leadership (L)	.73	11.3	4.7	.74	13.5	4.9

Table 2

Test-Retest Reliability Coefficients for the Diagnostic  
Scales of the MCI

GRADE 12 STUDENTS IN TWO MINNESOTA HIGH SCHOOLS

SCALE	AUSTIN H.S.					
	Boys (N=121)			Girls (N=118)		
	r	Mean <sup>2</sup>	SD <sup>2</sup>	r	Mean <sup>2</sup>	SD <sup>2</sup>
Family Relationships (FR)	.81	9.6	6.8	.73	9.9	7.1
Social Relationships (SR)	.82	23.0	11.8	.86	21.8	11.7
Emotional Stability (ES)	.81	13.2	6.2	.82	15.6	6.9
Conformity (C)	.71	13.2	4.3	.78	11.9	4.1
Adjustment to Reality (R)	.76	10.8	6.4	.80	11.1	7.4
Mood (M)	.56	11.4	4.0	.74	13.3	4.5
Leadership (L)	.71	12.7	4.5	.81	13.4	4.8
Interval between Testings	3 months					
SCALE	NORTH H.S.					
	Boys (N=115)			Girls (N=107)		
	r	Mean <sup>2</sup>	SD <sup>2</sup>	r	Mean <sup>2</sup>	SD <sup>2</sup>
Family Relationships (FR)	.84	10.2	6.8	.93	10.7	7.4
Social Relationships (SR)	.86	19.0	10.9	.84	17.5	11.7
Emotional Stability (ES)	.77	12.9	6.1	.83	15.1	6.9
Conformity (C)	.73	12.3	3.8	.76	12.7	3.8
Adjustment to Reality (R)	.77	9.8	6.1	.83	11.3	7.7
Mood (M)	.75	11.8	4.1	.77	13.6	4.9
Leadership (L)	.78	11.4	4.6	.73	11.6	4.7
Interval between Testings	1 month					

by John Crites (Hansen, 1974). Crites' (1973a) rationale behind changing the name was to emphasize career education as a parallel to career development and to use maturity to show the progressive change which accompanies emerging career awareness, exploration, and decision making.

The Career Maturity Inventory Attitude Scale and Competence Test were constructed to measure two of the four dimensions that Crites (1965) developed from Super's (Super, 1955a, 1957) five maturity dimensions.

Crites' four dimensions of career maturity are: (1) consistency of career choice over time; (2) realism of career choice in relation to personal capabilities and employment opportunities; (3) career choice attitudes; and (4) career choice competencies.

In the present study, the Career Maturity Inventory Attitude Scale is used. The Attitude Scale is older and has been validated more than the Competency Test.

The Attitude Scale measures: (1) involvement in the career choice process; (2) orientation toward work; (3) independence in decision making; (4) preferences for career choice process. The CMI-Attitude consists of 50 statements taken from adolescent clients who came for vocational counseling. The true-false response was chosen because it produced a greater number of significant differences between age and grade groupings.

An increase in scores was obtained across grade levels; as grade level increased, so did the maturity of the individ-

ual's attitudes toward work. The lower age limit is set at the sixth-grade level. The inventory is constructed to be administered mainly to high school students, but it can be used with college students, even seniors (Crites, 1973a). Twenty minutes is suggested for adequate working time. Those who take the inventory are asked to indicate their own feelings about the item. Internal consistency estimates (Kuder-Richardson Formula 20) for the Attitude Scale were calculated on the items from grades 6 through 12. The average coefficient is .74. The test-retest reliability over a one-year period is .71. Validity studies for the Attitude Scale are discussed in the manual (Crites, 1973b). Expert judges had 74% agreement on the content validity.

A number of studies are reported by Hansen (1974) to support criterion-related validity and construct validity of the inventory. Bathory (1967) found that the CMI-AS relates to realism of aspiration and attitude. Hollendar (1964) related the Inventory to consistency, decision, and realism in career choice. Carek (1965) found a relationship between decisiveness in career choice and the attitude scale. Cooter (1966) found an  $r$  of .38 ( $p < .01$ ) between career attitude maturity and Gribbons and Lohnes' (1968) Readiness for Vocational Planning scales.

Hansen and Ansell (1973) compared the Career Maturity Inventory and the Readiness for Career Planning scales and found that both instruments assess important dimensions in

career maturity and illustrate the general development of career maturity of students.

Studies have shown relationships between the Adjective Check List scales and the Attitude Scale. Bartlett (1968) found that students with higher scores on the Attitude Scale also had higher scores on the Adjective Check List scale. Hansen (1974) reported that other studies (Heilbrun, 1960; Hollender and Schalon, 1965) have found that individuals with higher Attitude Scale scores were better adjusted than persons with lower scores.

### Self-Report

The question used is as follows: How do you see yourself two years after high school? This question was given to the subjects in this study to answer. The question will add to the data by giving students an opportunity to respond subjectively to information relating to their personal and/or vocational planning that could not be reported in the two inventories.

### The Sample

The sample for this study was composed of two groups, the well adjusted group, and the emotionally maladjusted group. The subjects were drawn from two high schools in a medium-size city in the north central section of the State of Florida. The MCI was administered to two English classes from each grade level, ninth through eleventh, a total of six classes at each school. These two classes were

randomly selected and tested during the regular periods. Twelfth-grade students are assigned to their classes by majors and specialties; subjects will be selected randomly rather than classes. This will eliminate biases regarding the vocational variable. The test will be given by the author. In some cases there will be more than 35 students. A teacher or counselor will serve as a proctor during the test administration.

The well adjusted subjects are operationally defined as those students whose score fell .75 standard deviation below the mean on the Emotional Stability Score (ES) of the MCI, where low scores characterize emotionally stable individuals. Such students are described as seldom worrying, not likely to be self-conscious, and not lacking in self-confidence.

The emotionally maladjusted subjects will be defined operationally according to the MCI-ES as those students whose score fell .75 standard deviation above the mean. High scores characterize students who frequently are unhappy and, in general, appear to be emotionally unstable. These students are described as often over-reactive emotionally to what appear to be trivial situations.

When administering the MCI-ES, two groups of well adjusted and emotionally maladjusted will be obtained to compose the sample size for this study.

### Null Hypotheses

Five null hypotheses will be tested for this study.

They are:

1. There is no difference in career maturity of high and low maladjusted high school students.
2. There is no difference in the career maturity of male and female high school students.
3. There is no difference in the career maturity of white and nonwhite high school students.
4. There is no difference in career maturity of the four grade levels (9-12) of high school students.
5. There are no interactions in career maturity among the variables listed.

### Data Collection

The emotionally maladjusted group and the well adjusted group were selected after administration of the MCI and according to the criteria discussed previously.

Contact with the guidance office at the two high schools was made to arrange times and select the classes. The time used was one week for each school. The CMI-AS and the self-report question were given to all subjects participating in the study in order to prevent labeling. Contact with the Guidance Office in each of the two high schools was made to arrange the time and space. The study was conducted during March, 1976. Scoring and inventories for both, the CMI -

Attitude scale and the Minnesota Counseling Inventory, were done by hand. The answers to the self-report question were checked by the researcher for all students participating in the study.

### Analysis of the Data

The raw score obtained by the students in the CMI-AS was used in the analysis of data. The mean scores of the CMI-AS were calculated for each group. Analysis of variance was conducted to test the significant differences between the well adjusted and the maladjusted groups. The level of significance was set at .05.

Analysis of variance was also used to test differences among three variables, sex, race, and grade level. The alpha level was set at .05.

In order to investigate the relationship between the well adjusted and the emotionally maladjusted students on career maturity, the Pearson Product Moment of Correlation was used. The significance of the correlation was computed. The level of significance for the correlation was set at .05.

## CHAPTER IV

### ANALYSIS OF THE DATA

#### Introduction

The study was designed to examine the differences in career maturity of high school students with level of adjustment, sex, race, and grade level differences. Also, the study investigated correlation between career maturity and adjustment. In this chapter, an analysis of the data is presented based on the methodology and the statistical design described in Chapter III.

#### Descriptive Statistics

The dependent variable in this study was the Career Maturity Inventory Attitude Scale (CMI-Attitude) score. The inventory was administered to a total of 364 high school students. Subjects also took the Minnesota Counseling Inventory (MCI). Table 3 shows the statistical results of these two tests when administered to all students before assigning the two groups. Table 4 shows the distribution of the total number according to sex, race, and grade level.

The response on the Emotional Stability Scale of the MCI was used to classify responding students into two groups: Emotionally Maladjusted, and Well Adjusted. The selection of

Table 3  
Means, Standard Deviation, and N  
of the Total Population

Score	ES-MCI	CMI-Attitude
Mean	17.00	32.50
Standard Deviation	7.49	6.54
Standard Error	0.39	0.34
N of Total Population	364	364

Table 4  
Race, Class, and Sex of Total Group

Variable	Number of Cases	%
Class		
9	117	32.14
10	74	20.33
11	102	28.02
12	71	19.51
Sex		
Male	171	46.98
Female	193	53.02
Race		
White	254	69.78
Nonwhite	110	30.22
Total	364	100

the two groups from a total of 364 high school students was accomplished by choosing the cases which fall .75 standard deviation above the mean on the ES scale to obtain the maladjusted group; and .75 standard deviation below the mean to obtain the well adjusted group. Eighty-nine students were classified as emotionally maladjusted, and 92 students were classified as well adjusted students, adding to a sample size of 181 students.

Table 5 shows the results of the CMI-Attitude of these two groups. It also shows the statistical information obtained for each variable.

Thus, the sex, race, and grade level classifications were used in the analysis of variance as independent variables; classification of well adjusted and maladjusted served as the fourth independent variable in the factorial model. The results of the analyses follow.

## Results

Hypothesis 1      There is no difference in career maturity of well adjusted and maladjusted high school students.

The data used to test this hypothesis are reported in Tables 6 and 7.

Table 6 shows the CMI-Attitude score of both groups, maladjusted and well adjusted, used in the sample size.

Table 7 shows an analysis of variance of CMI-Attitude scale for the well adjusted and maladjusted groups. An

Table 5  
Mean, Standard Deviation and N of CMI-Attitude  
Scores of Total Group

Group	Maladjusted									
	Mean	Standard Dev.	Total	9th	10th	11th	12th			
	29.18	6.54	89							
Grade Level	Mean	S.D.	Total	9th	10th	11th	12th			
	29.16	5.49	25		28.81	29.63	28.93			
					6.01	7.87	6.83			
					21	27	16			
Race	W	N.W.	W	N.W.	W	N.W.	W	N.W.		
	Mean	S.D.	Total	9th	10th	11th	12th			
	31.26	4.10	19	22.50	31.25	34.33	25.86	33.25	24.62	
				3.72	4.88	4.05	8.25	6.01	4.62	
				6	12	12	15	8	8	
Sex	M	F	M	F	M	F	M	F	M	F
	Mean	S.D.	Total	9th	10th	11th	12th			
	31.6	3.05	5	21.14	31.0	32.14	27.2	33.5	33.16	22.83
				2.25	2.0	3.02	9.07	4.95	6.76	1.41
				25.0	5.63	3.36	10	2	6	6
				2	3	7	5	2	6	2
				4	9	5	10	6	2	6

Table 5 (Continued)

Group	Mean	Well Adjusted											
Standard Dev.		36.09											
		4.84											
Total		92											
Grade Level		9th			10th			11th			12th		
Mean		34.70			35.50			37.45			37.72		
S.D.		4.22			5.25			5.48			4.37		
Total		40			10			24			18		
Race		W		N.W		W		N.W		W		N.W	
Mean		34.84		34.00		37.37		28.00		38.66		26.00	
S.D.		4.35		3.78		3.92		0.0		4.38		2.82	
Total		33		7		8		2		22		2	
										15		3	
Sex		M		F		M		F		M		F	
Mean		34.15		35.92		34.0		34.0		38.8		35.0	
S.D.		3.95		4.87		4.24		4.12		2.49		5.29	
Total		20		13		2		5		5		3	
										11		11	
										37.85		39.25	
										5.17		2.81	
										7		8	
										31.0		38.0	
										0.0		0.0	
										2		1	

Table 6

CMI-Attitude Scores by  
Maladjusted and Well Adjusted Students

Statistical Information	Maladjusted	Well Adjusted
Mean	29.18	36.09
Standard Deviation	6.54	4.85
Standard Error	0.69	0.51
N	89	92

Table 7

Four-Way Fully Factorial Analysis of Variance  
on Mean CMI-Attitude Scale, with Group (Well  
Adjusted and Maladjusted), Class, Sex, and  
Race as Fixed Effects

Source of Variation	Sum of Squares	DF	Mean Square	F	P
Main Effects	3813.947	6	635.658	26.834	0.001**
Group	1120.876	1	1120.876	47.318	0.001**
Class	209.786	3	69.929	2.952	0.034*
Sex	22.111	1	22.111	0.933	0.999 NS
Race	1492.508	1	1492.508	63.006	0.001**
2-Way Interactions	329.799	12	27.483	1.160	0.317
Group-Class	11.425	3	3.808	0.161	0.999
Group-Sex	70.362	1	70.362	2.970	0.083
Group-Race	48.117	1	48.117	2.031	0.152
Class-Sex	48.139	3	16.046	0.677	0.999
Class-Race	46.162	3	15.387	0.650	0.999
Sex -Race	60.134	1	60.134	2.539	0.109
3-Way Interactions	299.281	10	29.928	1.263	0.256
Group-Class-Sex	107.889	3	35.963	1.518	0.211
Group-Class-Race	91.527	3	30.509	1.288	0.280
Group-Sex-Race	0.698	1	0.698	0.029	0.999
Class-Sex-Race	129.450	3	43.150	1.822	0.144
4-Way Interactions	68.559	1	68.559	2.894	0.087
Group-Class-Sex-Race	68.557	1	69.557	2.894	0.087
Explained	4511.586	29	155.572	6.567	0.001*
Residual	3553.234	150	23.688		
Total	8064.820	179	45.055		

\* Significant Difference at .05

\*\* Significant Difference at .001

observed significance of difference at the 0.001 level of confidence was found between the two groups. The well adjusted group obtained higher scores on the CMI-Attitude scale than the maladjusted. The hypothesis was rejected.

Hypothesis 2     There is no difference in the career maturity of male and female high school students.

The results of testing this hypothesis are reported in Tables 7 and 8. Table 8 shows the CMI-Attitude scale for both groups, male and female, of the students who participated in this study. Table 7 shows that this null hypothesis must be retained. There is no significant differences in career maturity according to sex.

When computing a one-way analysis of variance for the maladjusted group, Table 9 also shows that there is no significant difference in career maturity according to sex.

Hypothesis 3     There is no difference in the career maturity of white and nonwhite high school students.

The results of testing this hypothesis are reported in Tables 7, 10, and 11. Table 10 shows the statistical results of the CMI-Attitude scale by the race variable. The CMI-Attitude mean for white is 35.05 with standard deviation of 5.10, and the mean on the CMI-Attitude for nonwhite is 26.85 with standard deviation of 6.66.

This null hypothesis should be rejected as shown in Table 7, with race differences on career maturity being significant at the 0.001 level of confidence. There was a sig-

Table 8  
CMI-Attitude Scores by  
Male and Female

Statistical Information	Male	Female
Male	33.05	32.42
Standard Deviation	6.36	7.00
Standard Error	0.71	0.70
N	80	101

Table 9  
One-Way Analysis of Variance of  
CMI-Attitude Scores for Male and Female Students  
in the Maladjusted Group

Source	DF	Sum of Squares	Mean Square	F	Signif. of F
Between Sexes	1	0.4375	0.4375	0.010	0.883 NS
Within Sexes	87	3768.7500	43.3190		
Total	88	3769.1875			

Table 10

Results of CMI-Attitude by  
Whites and Nonwhites

Statistical Information		Whites	Nonwhites
Mean		35.05	26.85
Standard Deviation		5.10	6.66
Standard Error		0.45	0.92
N		129	52

Table 11

One-Way Analysis of Variance of  
CMI-Attitude Scores for Whites and Nonwhites  
within the Maladjusted Group

Source	DF	Sum of Squares	Mean Square	F	Signif. of F
Between Race	1	1158.5625	1158.5625	38.610	0.001 **
Within Race	87	2610.6250	30.0072		
Total	88				

\*\* Significant difference at .001

nificant difference on the CMI-Attitude scores between white and nonwhite high school students.

Table 11 shows that this difference exists also when computing a one-way analysis of variance of CMI-Attitude scores within the maladjusted group for the two groups white and nonwhite at the 0.001 level of confidence.

Hypothesis 4     There is no difference in career maturity of the four grade levels (9-12) of high school students.

The data used to test this hypothesis are reported in Tables 7, 12, and 13. Table 12 shows the statistical results when administering the CMI-Attitude for the students in four classes (9-12). It was observed that the CMI-Attitude scores mean for 9th graders was 32.57 with a standard deviation of 5.44. For 10th graders the mean was 30.97 with a standard deviation of 6.52. For the 11th graders the mean was 33.31 with a standard deviation of 7.85, and for 12th graders the mean was 33.59 with standard deviation of 7.14.

This null hypothesis was rejected as shown in Table 7 at  $p < 0.05$  with reliable class differences being shown on CMI-Attitude scores. When computing a one-way analysis of variance of the CMI-Attitude score within the maladjusted group only, and using the grade level as the independent variable, Table 13 shows that there is no significant difference between classes. This might be due to the difference of sample size; when finding the significant difference, the total sample size was used, and a slight significant difference was found. In the one-way analysis of variance

Table 12

Results of CMI-Attitude by  
Class

Statistical Inf.	9th Grade	10th Grade	11th Grade	12th Grade
Mean	32.57	30.97	33.31	33.59
Standard Deviation	5.44	6.52	7.85	7.14
Standard Error	0.67	1.17	1.10	2.22
N	65	31	51	34

Table 13

One-Way Analysis of Variance of  
CMI-Attitude Scores for the Grade Level  
within the Maladjusted Group

Source	DF	Sum of Squares	Mean Square	F	Signif. of F
Between Classes	3	9.3125	3.1042	0.070	0.970 NS
Within Classes	85	3759.8750	44.2338		
Total	88	3769.1875			

a smaller sample was used, the maladjusted group only, and the number of subjects was less.

Hypothesis 5     There are no interactions in career maturity among the variables listed.

Table 7 shows that this null hypothesis must be accepted as no significant differences were obtained for interactions between the main effects (sex, emotional stability, race, and class) at the first, second or third order levels. This suggests that the emotional stability groupings and the sex, race, and school class variable components are reliably independent.

Self-Report Question     How do you see yourself two years after graduation?

The results of this subjective question, which was answered by the students who participated in the study are reported in Tables 14, 15, 16, and 17.

When analyzing the answers, seven categories were observed from the responses of the students. These are:

1. Personal Planning
2. Vocational Planning
3. Both, Personal and Vocational Planning
4. Educational Planning with Major
5. Educational Planning without Major
6. Entering the Military Services
7. Undecided

Tables 14 and 15 show the statistical results and the breakdown of the CMI-Attitude scores by the seven categories.

Table 14

Statistical Results of CMI-Attitude  
Scale by the Self-Report (7 Categories)

Statistical Information	Personal Planning	Vocational Planning	Per.&Voc. Planning	Both		Education with Major	Education without Major	Military Service	Undecided
				Education Planning	with Major				
Mean*	28.00	31.61	26.66	35.18	33.63	33.75	28.10		
Standard Dev.	10.06	6.23	6.96	5.98	6.00	5.25	5.34		
N	6	31	15	56	59	4	10		
% Total	3.31	17.13	8.29	30.94	32.61	2.20	5.52		

\* Any pair-wise mean difference for the above groups greater than or equal to 4.76 indicates independent samples.

Table 15

Breakdown of CMI-Attitude Scale by Self-Report  
for Well Adjusted and Maladjusted Subjects.  
Mean and Percentages

Category	Maladjusted	Well-Adjusted	Total
Personal			
Mean	24.80	44.00	
Number	5	1	6
%	2.76	.55	3.31
Vocational			
Mean	29.17	34.57	
Number	17	14	31
%	9.39	7.74	17.13
Both			
Mean	24.27	33.25	
Number	11	4	15
%	6.08	2.21	8.29
Ed. w/Major			
Mean	31.52	37.37	
Number	21	35	
%	11.60	19.34	30.94
Ed. without Major			
Mean	30.82	36.16	
Number	28	31	59
%	15.48	17.13	32.61
Military			
Mean	30.00	37.50	
Number	2	2	4
%	1.10	1.10	2.20
Undecided			
Mean	25.00	31.20	
Number	5	5	10
%	2.76	2.76	5.52
Total			
Ns	89	92	181
%s	49.17	50.83	100

Table 16

One-Way Analysis of Variance of  
CMI-Attitude Scale by  
Self-Report (7 Categories)

Source	Df	Sum of Squares	Mean Square	F	Signif. of F
Between Categories	6	1325.8125	220.9687	5.701	0.001 **
Within Categories	174	6744.5625	38.7618		
Total	180	8070.3750			

\*\* Significant difference at .001

Table 17

One-Way Analysis of Variance of  
CMI-Attitude Scale of Self-Report  
within the Maladjusted Group

Source	DF	Sum of Squares	Mean Square	F	Signif. of F
Between Groups	6	640.3125	106.7188	2.797	0.016 *
Within Groups	82	3128.8750	38.1570		
Total	88	3768.1875			

\* Significant difference at .05

In Table 14, 3.31% of the sample size reported personal planning 2 years after finishing high school, for example, marriage, enjoying life, staying or leaving home, etc.; 17.13% of the total sample size were more aware of vocational planning, where they see themselves as working in a place, earning money and having a job when finishing high school; 8.29% of the sample size see themselves as doing both, personal and vocational planning; 30.94% of the sample size see themselves in an educational setting where they pursue their education with a defined major which they already know.

The highest percentage was of those students who see themselves in an educational setting but undecided yet about a major; 32.61% reported that they are planning to attend school but they are not sure what they will study; 2.20% of the sample size, which was the lowest percentage, reported that they see themselves in the military services, and/or learning a profession that would help them in the future; 5.52% of the students were not sure what they will be doing 2 years after graduation, and therefore, they could not plan.

Table 15 breaks down the sample size into two groups, the well adjusted and the maladjusted, according to CMI-Attitude scores obtained for all seven categories.

The mean CMI-Attitude of the well adjusted students is higher than the mean CMI-Attitude of the maladjusted students in all seven categories. It was observed also that the maladjusted students indicated more interest than the well adjusted subjects in the personal planning category, vocational

planning, and both personal and vocational planning categories: 2.76% of the total sample of maladjusted reported personal planning vs. 0.55% of the total sample of well adjusted; 9.39% of the total sample size classified as maladjusted reported the vocational planning vs. 7.74% for the well adjusted; 6.08% of the total sample of maladjusted responded to the third category that indicated both vocational and personal planning.

However, the percentages of well adjusted subjects were higher on the two educational categories (with major and without major): 19.34% were well adjusted vs. 11.60% for the maladjusted, in the educational category with major; and, 17.13% were well adjusted subjects vs. 15.48% maladjusted, in the educational category without major.

No difference in percentages was found between maladjusted and well adjusted for the military services and the undecided categories.

When computing a one-way analysis of variance of CMI-Attitude scale by self-report (7 categories), Table 16 shows a significant difference within these categories at  $p < 0.001$  level of confidence.

A significant difference was discovered also when using the maladjusted subjects only. Table 17 shows a one-way analysis of variance of CMI-Attitude scores of self-report categories within the maladjusted subjects. The difference was significant at the  $p < 0.01$  level of confidence.

### Correlation

Regression of the emotional stability score obtained on the MCI, against the career maturity score, obtained from the CMI-Attitude scale, resulted in a product moment correlation of  $-.52$  for the CMI-Attitude scale of the selected emotional stability classifications (well adjusted and maladjusted). Thus, a low CMI-Attitude score is likely to be obtained by subjects with high scores on the ES Scale, where high scores on the ES Scale are indicative of maladjustment. This correlation for a sample size of 181 is significant at  $p < 0.001$ .

### Discussion of Results

The results of this study suggest that emotionally maladjusted high school students are lower in their CMI-AS mean scores than the well adjusted high school students.

These results can be explained as a function of the deep relationship between personal and vocational aspects of the total development. There is a possibility too that with some students an immaturity in their vocational development occurred because of unresolved conflicts within themselves, and such conflicts might contribute to self-doubts and confusion in regard to their vocational development. In this case also, they might not have had the opportunity to explore their vocational world.

As in many studies mentioned in Chapter II, this study also showed a significant difference in career maturity

between well adjusted and maladjusted subjects. This supports the assumption that personal and vocational development should be seen as one aspect; any disturbance in personality will affect the vocational development of the individual.

Small (1953) also found that healthy people can choose and plan for an occupation and postpone satisfactions for a longer time than can an emotionally maladjusted person, especially one with a weak ego. This might explain why the percentages of well adjusted students in the self-report categories were higher in both educational categories (with and without majors) than the maladjusted students. Meanwhile, for the personal, vocational, and combined personal and vocational categories, the maladjusted group had higher percentages than the well adjusted group (Table 15).

This study also showed no significant difference between male and female in career maturity. This might be due to the development and spread of female career awareness. Females conceptualize themselves as equal members of society, especially concerning the world of work. This may be a result of the support of official offices and institutions, and the spread of the Women's Liberation Movements, which operate to increase feminine self-concept. Putnam and others (1972) demonstrate that self-concept is significantly associated with vocational maturity. Their results indicate that self-concept and feminine role self-concept are useful in predicting vocational maturity.

The present study is consistent with those of Vriend (1969), Gilliland (1968) and Baird (1968). None of these

studies found significant sex differences in vocational development.

Career maturity generally increases with age and grade level. It was found in this study that 10th graders were least vocationally mature. This contradicts the previous researchers who found that the total vocational maturity mean of 11th graders is slightly less than 10th graders (Crites, 1965).

However, Ansell and Hansen (1971) reported that in their study, using the Readiness and Vocational Planning Scale, they found that "middle class students show a steady progression in scores while the lower class students made large increases in the eleventh grade." (p. 501)

Results of the present study showed that differences also exist between races. The white group showed more career maturity than the nonwhite group. This might be due to the lack of knowledge that minority students have about the world of work, or the lack of motivation. Many researchers, as indicated in Chapter II, demonstrated that the difference exists in vocational development between white and black. Maturity seems to be related to family and family wishes, socio-economic and cultural factors, and attitudes and values. The lower class subjects are more likely to be less vocationally mature.

Ansell and Hansen (1971) found a significant difference among socio-economic groups in 8th-12th graders. Differences in grades 10, 11, and 12 between lower and middle class subjects existed without regard to race. Lower class black and

white subjects did not differ significantly in their career maturity.

### Summary

Results revealed that a significant difference in career maturity exists between the maladjusted and well adjusted high school students. This difference was at the .001 level of confidence. An  $r$  of  $-.52$  was found in the product moment correlation between career maturity and level of adjustment. This indicated that those students who were emotionally maladjusted are more likely to be vocationally immature.

It has been found also that a significant difference at the .05 level of confidence exists between the classes 9-12 on the mean CMI-Attitude scale, and that progression in career maturity exists. However, a slight regression occurred in the 10th grade, even though other researchers demonstrated that this regression occurred in the 11th grade level.

An investigation of sex and career maturity indicated that no significant differences exist between males and females.

The results indicated also that a significant difference at the .001 level of confidence exists between white and non-white high school students on the mean CMI-Attitude scale. In computing a one-way analysis of variance in the maladjusted group, no significant differences at the .05 level

of confidence were found between sexes and classes. Significant differences at the .001 level of confidence were found in the race variable within the maladjusted group.

Responses of maladjusted and well adjusted students on the self-report question revealed that the highest percentage of responses was indicative of educational planning. However, the percentage of well adjusted students was higher than the percentage of maladjusted students in both educational categories. However, percentages of maladjusted were higher than well adjusted on the personal, vocational, and combined personal and vocational categories. These results support the assumption that well adjusted high school students are more vocationally mature than maladjusted students, and also suggest that career maturity is one aspect of the total personality maturity.

## CHAPTER V

### CONCLUSIONS AND IMPLICATIONS

#### Introduction

With the increasing interest in work, and the extent to which it affects one's life, researchers have tried to investigate the relationship between career and personal development. This research is needed in order to provide counselors with information concerning the relationship between these two factors. The purpose of this study was to determine the relationship between career maturity and personal adjustment. This study also investigated the differences in career maturity within the sex, race, and grade level.

#### Conclusions

The assumption that vocational development is an integral part of the total personality development and that vocational maturity relates to the total maturity received some support.

Career maturity seems to be a reflection of general personality development and must be taken into account in any effective vocational counseling. It seems that in order to help adolescents in their vocational development one must

understand and help individuals in their personality development.

It is obvious that there is a close relationship between emotional and vocational adjustment and improvement in one will bring improvement in the other. The correlation that had been found between career maturity and level of adjustment suggests that the more emotionally maladjusted individual, when compared with the well adjusted individual, would be less vocationally mature and would have difficulties in his vocational development.

The sex variable does not account for a significant difference in career maturity. Race and class level, however, do result in significant differences in career maturity.

The responses of students to the self-report question indicated that the majority of both groups, "maladjusted" and "well adjusted," were aiming at school programs.

Adolescence is a transitional stage where students are seeking their identity, in addition to achieving their physical development and growth. They are also experiencing their psychological and vocational development. These factors arouse stress, conflict, and confusion, which no doubt affect their career maturity.

### Implications

The implications of these results suggest that if the counselor is to facilitate the counselee's career maturity, then he must deal with the personality development and not

just the isolated vocational development of his counselees. This also applies to the holistic point of view, where the counselor should look at the person as a whole.

Even when trying to help the individual on strictly vocational matters, counselors should go beyond providing vocational assessment and occupational information. The counselor should look into personal-emotional areas of development and provide to his counselee help with his emotional problems. This in turn will bring an improvement in career maturity. Counselors should identify early those students who have emotional problems in order to help them with both vocational and personal development and take steps to improve their career maturity.

It is the responsibility then of the counselor, to reach the general population of the high school and not only those who ask for help in terms of the traditional counseling service aspects. Of course, counselors then face the question of how to provide this help and preventive vocational services, especially in the early developmental stages of these students.

It has been shown in the responses to the self-report question that the majority of both, the well adjusted and the maladjusted students, is planning to continue their education. Counselors should, therefore, recommend that schools provide better occupational information, more vocational guidance, and additional courses that teach basic academic skills.

### Suggestions for Further Research

Previous research as well as the present study have found a definite relationship between psychological and vocational development. It is suggested that investigations should be undertaken to determine what changes in career maturity take place among the emotionally maladjusted high school students when improving their behavior and adjustment level.

It is also apparent, according to this study and according to the holistic point of view, that improvement in one aspect of personality brings improvement in other aspects. Accordingly, a study is suggested to investigate how improvement in career maturity affects personal development. This could be done by a follow-up of the maladjusted high school students, working with them to increase their career maturity in order to see how this will affect their behavior.

It is also suggested that a study should be conducted to determine the change in sex role in regards to career maturity, especially in these days of women's liberation, and to examine to what extent change in the feminine role today affects career maturity.

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## BIOGRAPHICAL SKETCH

Mousa Karayanni was born in Akko, Israel, on December 16, 1939. His father, Khalil, and his mother, Kamleh, with his seven brothers and sisters, live in Kuffr-Yassif, a small town in the northern part of Israel. He married Lydia N. Said on July 6, 1963, and has three children Mike, Mona, and Ranya.

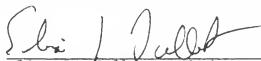
Mr. Karayanni attended public school in Kuffr-Yassif where he finished also his secondary school in 1958. In 1960, he received his teaching certificate from the Arab Teacher's College in Tel-Aviv.

While working as a teacher in the elementary school at his hometown, from 1960 until 1971, Mr. Karayanni received his Bachelor of Arts degree from the University of Haifa, Israel, in 1971, majoring in Arabic and Counseling. During the school year 1971/1972 he served as a vice-principal in the elementary school in his hometown. The following school year Mr. Karayanni resigned to accept the position of counselor in the same school.

During his first year of studies towards his Masters degree, Mr. Karayanni received a scholarship from the University of Haifa to continue his academic education in the U.S.A. He received his Specialist in Education and Master

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I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



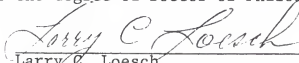
Elias L. Tolbert, Chairman  
Associate Professor of Counselor  
Education

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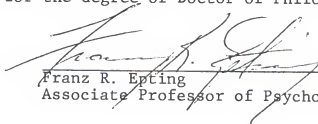
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Assistant Professor of Counselor  
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I certify that I have read this study and that in my opinion it conforms to acceptable standards of sholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



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This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

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